

# PROACT FACT SHEET



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## Hazardous Chemical Reporting

### Introduction

The Emergency Planning and Community Right-to-Know Act ([EPCRA](#)), promulgated as Title III of the Superfund Amendments and Reauthorization Act (SARA), 42 United States Code § 1101 *et seq.*, is designed to provide federal, state, and local agencies, as well as the public, access to information on chemical hazards. [EPCRA](#) has four major components that collectively implement the emergency planning and reporting provisions of the Act. These components require facilities to provide information on the type, amount, and location of chemical hazards by instituting multiple reporting requirements that are triggered if a facility uses, stores, and/or releases any specified chemical in an amount equal to or greater than established reportable quantities. This fourth installment in a series of fact sheets on EPCRA discusses the hazardous chemical reporting provisions of EPCRA Sections 311 and 312.

### Reporting Synopsis

The inventory reporting requirements for Sections 311 and 312 incorporate a two-tier approach in providing information to the public on the hazardous chemicals stored at a facility. The public disclosure of information on these chemicals enhances a community's awareness and facilitates the development of state and local emergency response plans.

Any facility required to maintain a Material Safety Data Sheet (MSDS) must submit the MSDS to state and local agencies if the chemical is present in an amount equal to or greater than its established threshold level. In addition, if a hazardous chemical is present at a facility in an amount equal to or greater than its established threshold level, the facility is required to prepare and submit an inventory form to state and local agencies. Regulations implementing Sections 311 and 312 of EPCRA are promulgated in Title 40 Code of Federal Regulations (CFR) Part 370.

### Chemical Class

The hazardous chemical reporting provisions of EPCRA involve substances classified as hazardous chemicals. These hazardous chemicals are designated by the Occupational Safety and Health Administration (OSHA) to be a physical or health hazard and are defined at length in Title 29 CFR Part 1910.1200(c).

Often, a substance designated as a hazardous chemical will also be designated as an extremely hazardous substance (EHS). An EHS is any chemical that has immediate health effects and is specifically defined to mean any substance listed in Appendices A and B of Title 40 CFR Part 355.

### Reporting Threshold

The **Hazardous Chemical Threshold Level** establishes the minimum amount, in pounds, of any hazardous chemical that can be present at a facility without triggering reporting requirements. The threshold level for hazardous chemicals is an amount equal to or greater than 10,000 pounds; however, if the chemical is also classified as an EHS, the threshold level is equal to the **Threshold Planning Quantity** or 500 pounds, whichever is less.

For mixtures, the quantity of a hazardous chemical is the total weight of the chemical present in all products at the facility, if the concentration is greater than 1 percent. This concentration limit drops to 0.1 percent if the hazardous chemical is an OSHA identified carcinogen.

### Threshold Determinations

All quantities of chemicals reported must be reported in pounds, which often requires a unit conversion. Below are examples of general calculations required:

#### Volumes

In many cases, chemicals are procured in bulk or by volume. Volumes must be converted to weights using the appropriate specific gravity data that is generally found on the material's MSDS.

#### Mixtures

Example: A chemical fills one 500-gallon container and the chemical has a density of 2.5 pounds (lbs) per gallon. By multiplying the volume of the chemical by its density, the pounds of hazardous chemical is determined to be 1,250 lbs.

Mixtures may be reported using one of two options: 1) the weight of the entire mixture must be reported; or 2) only the portion of the mixture that is a hazardous chemical must be reported. However, regardless of which option is used for reporting mixtures, reporting must be consistent for both Sections 311 and 312. Mixtures may be reported using one of two options: 1) the weight of the entire mixture must be reported; or 2) only the portion of the mixture that is a hazardous chemical must be reported. However, regardless of which option is used for reporting mixtures, reporting must be consistent for both Sections 311 and 312.

Example: Consider a hazardous solution that weighs 100 lbs, but only contains 25% of a hazardous chemical. Either the entire weight of the mixture, 100 lbs, may be reported, or the portion of the mixture that is a hazardous chemical, in this case 25 lbs, may be reported.

## Section Summaries

### Section 311

Section 311 covers any facility subject to Title 29 CFR Part 1910.1200, the OSHA regulation on MSDS availability requirements for hazardous chemicals. The owner/operator of a facility at which a hazardous chemical is present in amounts equal to or greater than its established threshold level, must submit the chemical's MSDS to the State Emergency Response Commission (SERC), the Local Emergency Planning Committee (LEPC), and the local fire department.

An alternative to the submission of MSDSs is to provide a list of the hazardous chemicals meeting or exceeding their established threshold level. The list must include both the chemical and common name of the substance and identify the applicable hazard category. Also, the owner/operator of a facility, upon request, is required to submit the MSDS of any chemical identified on the list within thirty days.

If a new chemical is brought on to the facility in a quantity that exceeds its threshold level, the facility has three months to submit the new MSDS or a revised chemical list to the SERC, LEPC, and local fire department. Finally, if a previously submitted MSDS has been revised with significant new information concerning the aspect of the chemical, the owner/operator of the facility has three months

to provide the revised MSDS.

### Section 312

Section 312 requires the owner/operator of a facility, mandated to have MSDSs under OSHA regulations covered in Section 311, to prepare and submit an emergency and hazardous chemical inventory form to the SERC, the LEPC, and the local fire department. The form is required for each hazardous chemical present at the facility at any one time in amounts equal to or greater than its established threshold level, and are due annually by 1 March for the preceding calendar year.

The Environmental Protection Agency (EPA) has exempted certain hazardous chemicals covered under OSHA regulations from EPCRA reporting.

## Hazard Categories

These hazard categories should not be confused with categories established under OSHA's Hazard Communication Standard.

**Immediate (Acute) Health Hazard** - includes highly toxic, toxic, irritant, sensitizer, corrosive, and other chemicals that cause an adverse effect to a target organ that usually occurs rapidly as a result of short term exposure and is of short duration;

**Delayed (Chronic) Health Hazard** - includes carcinogens and other hazardous chemicals that cause an adverse effect to a target organ that generally occurs as a result of long term exposure and is of long duration;

**Fire Hazard** - includes flammables, combustible liquids, pyrophorics, and oxidizers;

**Sudden Release of Pressure** - includes explosives and compressed gases; and

**Reactive** - includes unstable reactives, organic peroxides, and water reactives.

## Exemptions

Under OSHA regulations facilities at which exempted chemicals are stored or located may be required to have a MSDS. However, the EPA has exempted the following particular hazardous chemicals from the reporting requirements set forth in Sections 311 and 312.

- Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug

**Administration;**

- Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use;
- Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public;
- Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual; and
- Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

**Tier I/ Tier II Reporting**

The Environmental Protection Agency (EPA) has developed two form types, Tier I and Tier II. The owner/operator of a facility covered by Section 312 is only required by the EPA to submit a Tier I report; however, a Tier II report may be substituted and submitted to the SERC, the LEPC, or the local fire department. Regardless of the EPA's allowance, some state agencies and federal organizations, such as the *U.S. Air Force*, mandate the submittal of a *Tier II form*.

Both forms identify the facility, the name and address of the owner/operator, emergency contact information, and require aggregate information on hazardous chemicals by hazard categories (previously defined).

**Tier I**

Tier I reports provide information from the previous calendar year and must be submitted on or before 1 March of every year. A Tier I report requires a facility to estimate and provide the following:

- the average daily amount and the maximum weight for each hazard category;

- the greatest number of days a single hazardous chemical was present on-site for each hazard category; and
- the general location of the chemical within the facility. General locations should include the name or identification of buildings, tank fields, lots, or other such areas.

The owner/operator must certify all information presented on the Tier I report is accurate and complete. In addition, an owner/operator must prepare a Tier II report, within 30 days, if a written request is made from the SERC or LEPC.

**Tier II**

The Tier II report contains information for the preceding calendar year and must be submitted by 1 March. A Tier II report is more specific than a Tier I report providing detailed information on hazardous chemical descriptions, amounts, and locations. A Tier II report must include, but is not limited to, the following information:

- the common name and chemical name of each hazardous chemical;
- the Chemical Abstract Service (CAS) registry number;
- the average, daily, and maximum amount calculations for hazardous chemicals present at the facility;
- the number of days the chemical was found on-site and the applicable hazard category;
- indication if the chemical is a solid, liquid, gas, or mixture; and
- a description of location and storage conditions.

Tier II reports have specific codes which indicate the types of storage and conditions of storage present at the facility. For instance, a hazardous chemical stored in a carboy at ambient pressure and temperature will have a specific code for storage type - carboy and storage conditions - ambient pressure and ambient temperature.

More information on completing Tier I/II forms is available in Title 40 CFR 370 Subpart D, "Inventory Forms."

### **Public Availability**

Information submitted under EPCRA Sections 311 and 312 must be made available to the general public by the SERC and LEPC during normal business hours. Therefore, an owner/operator of a facility may elect to withhold location information on a specific chemical.

In order to prevent disclosure to the public, the facility owner/operator must complete a separate Tier II Confidential Location Information Sheet. This sheet is attached to the Tier II report and submitted to the SERC and LEPC; however, the information provided on the confidential location sheet is not subject to public disclosure.

### **Additional Information**

This is the fourth fact sheet in a series discussing [EPCRA](#) reporting requirements, for additional information review our other fact sheets on EPCRA.

Air Force personnel may contact Ms. Laura Maxwell, HQ AFCEE, DSN 240-4218 or PROACT at DSN 240-4240.

### **Websites**

- Environmental Quality Directorate, HQ AFCEE, <http://www.afcee.brooks.af.mil/>.
- Chemical Emergency Preparedness and Prevention Office, EPA, <http://www.epa.gov/ceppo/>.
- Office of Solid Waste, EPA, <http://www.epa.gov/epaoswer/hotline/epcra.htm>.

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